

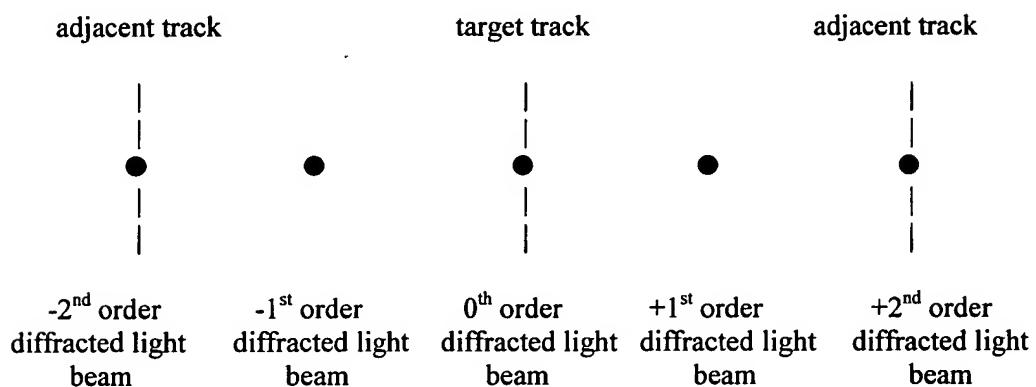
REMARKS

Claims 1, 2, 12 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ohba (U.S. Patent No. 5,892,744) (hereinafter “Ohba”). Claims 3 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohba. Claims 9 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohba in view of Alon (U.S. Patent No. 5,959,953) (hereinafter “Alon”). Claims 10, 11, 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohba in view of Imada et al. (U.S. Patent No. 5,404,344) (hereinafter “Imada”).

Claim 1 of the instant application describes an optical pickup device combination that includes an optical system for focusing the zero order, +/- first order and +/- second order diffracted light on a recording surface of an optical recording medium. More particularly, claim 1 goes on to explain that the optical pickup device is configured “so as to form a spot of the zero order diffracted light on a first track” and also so as to form “spots of the +/- second order diffracted light on tracks adjacent to the first track, and spots of the +/- first order diffracted light between the spot of the zero order diffracted light and the spots of the +/- second order diffracted light.” At pages 2-3 of the Final Office Action, the Examiner cites to Figs. 5, 6 and 8 of Ohba as allegedly meeting these features. This interpretation of Ohba is respectfully traversed for at least the following reasons.

Applicants respectfully submit that independent claim 1 differs from any disclosure in Ohba at least with respect to the irradiating positions of the light beams. More particularly, claim 1 differs from Ohba with regard to the spot locations of the +/- first order diffracted light and the spot locations of the +/- second order diffracted light. For example, claim 1 sets forth

that the zero order diffracted light beam is irradiated on the target track and the +/- second order diffracted light beams are irradiated on adjacent tracks on both sides of the target track. Claim 1 goes on to also set forth that + first order diffracted light beam is irradiated between the zero order diffracted light beam and the + second order diffracted light beam. Even further, claim 1 goes on to set forth that - first order diffracted light beam is irradiated between the zero order diffracted light beam and the – second order diffracted light beam. See, for example, the illustrations in Figs. 9, 11 and 13 of the instant application, and the illustration below.



Applicants respectfully submit that Ohba clearly differs from such an arrangement because Ohba discloses the irradiation of the second order diffracted light inside the adjacent track. There is no teaching, or even a suggestion, in Ohba of irradiating the second order diffracted light on the adjacent track, as described in independent claim 1 of the instant application. This is clearly illustrated from Fig. 8 of Ohba. More particularly, Ohba explicitly teaches that the symbol Tp2 in Fig. 8 is the track pitch. See col. 5, lines 8-10 of Ohba. Also, Fig. 7 of Ohba illustrates the second order diffracted light irradiated inside the adjacent track. The symbol Tp1 in Fig. 7 is the track pitch. See col. 5, line 7 of Ohba.

Applicants respectfully submit that in embodiments of the disclosure of the instant application it is indispensable to irradiate the second order diffracted light exactly on the adjacent track, as discussed previously. This feature is necessary in order to eliminate an offset signal when the offset signal is generated in a tracking error signal due to the shifting of the object lens 37 in a disk radius direction. See, for example, page 16, line 6 – page 17, line 1 of the instant application's specification.

The Examiner asserts, in the last paragraph of page 7 of the Final Office Action, that the non-hatched area in Fig. 8 (or Fig. 7) of Ohba is also a track. Applicants respectfully submit that such an assertion is not technically accurate because Ohba includes a clear indication that the distance Tp1 (or Tp2) is the track pitch. Applicants respectfully submit that it is well understood in the associated art that the “track pitch” clearly means the distance between two adjacent tracks.

In the Final Office Action, the Examiner utilizes the terms “groove track” and “land track.” However, Applicants respectfully submit that these tracks are two different types of tracks. In addition, as discussed in the response previously filed in this application on December 23, 2005, Ohba makes no mention, or even a suggestion, of an optical disc arrangement involving groove tracks. Applicants respectfully submit that the remarks previously filed in December 23, 2005 in this application still apply.

Applicants respectfully submit that the arrangements disclosed in Ohba cannot eliminate the offset signal which would be included in the tracking error signal upon shifting of the object lens in the disk radius direction. This is because the outermost light beam in Fig. 8 (or Fig. 7) of

Ohba is not irradiated on the track 73. In order to eliminate the offset signal, Ohba's arrangement would need to irradiate the light beam on the track 73.

Applicants note further that the use of the returning second order diffracted light beam from the same kind of track is requisite in embodiments of the disclosure of the instant application. If the zero order diffracted light beam is irradiated on the land track and the second order diffracted light beam is irradiated on the different type of track (i.e., the alleged "groove track" asserted by the Office Action), Applicants respectfully submit that the advantageous functionalities of embodiments of the disclosure of the instant application cannot function as desired.

In addition, it is clear from the disclosure of Ohba that its disclosed optical detector only receives returning light at its photodetector from three light beams in the Fig. 8 arrangement, namely zero-order and +/- first order light, thus being a "three-beam" pickup similar to those discussed in the Background portion of the instant application. The "optical detector" portion of independent claim 1 clearly recites that it receives each of the five types of light beams at its "first to fifth independent light-receiving elements."

Accordingly, Applicants respectfully submit that Ohba does not disclose, or even suggest, particular features of independent claim 1 including the feature of the optical pickup device being configured to focus the zero order, +/- first order and +/- second order diffracted light on a recording surface of an optical recording medium in the specific manners discussed in independent claim 1, as discussed previously and as discussed in the previous response filed on December 23, 2005 in this application. Each of the arrangements of Fig. 7 and 8 of Ohba are traditional "three-beam" pickup arrangements similar to those discussed in the Background

portion of the instant application. Accordingly, five beams do not need to be focused on the medium in the Ohba arrangement, as described in independent claim 1 of the instant application. In addition, independent claim 1's "optical detector" portion of independent claim 1 clearly recites that it receives each of the five types of light beams at its "first to fifth independent light-receiving elements." Applicants respectfully submit that independent claim 12 is also allowable for similar reasons as set forth above with regard to independent claim 1.

Finally, in the previous Office Action dated September 26, 2005, as well as in the Final Office Action dated February 3, 2006, the Examiner made particular technical assertions regarding "Official Notice." See, for example, the first paragraph of page 4 of the Final Office Action. Applicants respectfully traverse the Examiner's technical assertions regarding "Official Notice" for at least the following reasons.

First, Applicants do not technically agree with the Office Action's assertion at page 4, lines 4-8 of the Final Office Action that "[i]t would have been obvious ... light-receiving elements of Ohba" at least because Applicants cannot understand the Office Action's assertion at page 4, lines 8-9 that "the motivation being to more accurately detect position errors of an optical pickup." Applicants note that the Examiner contends that the motivation is to more accurately detect position errors of an optical pickup. However, Applicants respectfully submit that the Examiner did not provide any explanation of how the position error would be detected more accurately. In addition, Applicants respectfully submit that detecting the position error of the optical pickup is not the object of embodiments of the instant application. In addition, Applicants do not understand the Examiner's meaning of the term "advantageous" in the discussion at line 1 of page 4 of the Final Office Action in this regard.

In the event that the Examiner might maintain any such “Official Notice” assertions in the next Office Communication, Applicants respectfully request that the Examiner provide factual basis for his assertions, such as by citing one or more references in support of his position in accordance with the directives of MPEP § 2144.03.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. §§ 102(b) and 103(a) should be withdrawn because Ohba does not teach or suggest each feature of independent claims 1 and 12.

As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Similarly, MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974).” Furthermore, Applicant respectfully asserts that the dependent claims are allowable at least because of their dependence from claim 1 or 12, and the reasons set forth above. Moreover, Applicant respectfully submits that the additionally applied references to Alon, with respect to claims 9 and 18, and Imada, with respect to claims 10, 11, 19 and 20, do not cure the deficiencies discussed above with regard to Ohba.

The Examiner is thanked for the indication that claims 4-8 and 15-17 would be allowable if rewritten in independent form. However, as noted above, these dependent claims are also allowable because of their dependence from claims 1 or 12. Accordingly, withdrawal of the objection to these claims is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

DRINKER BIDDLE & REATH LLP

Dated: May 1, 2006

By:



Paul A. Fournier

Reg. No. 41,023

Customer No. 055694

DRINKER BIDDLE & REATH LLP

1500 K Street, N.W., Suite 1100

Washington, DC 20005-1209

Tel.: (202) 842-8800

Fax: (202) 842-8465